

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Addease COMMISSIONER FOR PATENTS PO Box 1430 Alexandria, Virginia 22313-1450 www.webjo.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,830	04/18/2005	Erwin Hacker	514413-3952	2047
7590 10142010 William F Lawrence & Haug 745 Fifth Avenue New York, NY 10151			EXAMINER	
			CHUI, MEI PING	
			ART UNIT	PAPER NUMBER
			1616	
			MAIL DATE	DELIVERY MODE
			10/14/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Application No. Applicant(s) 10/531.830 HACKER ET AL Office Action Summary Examiner Art Unit MEI-PING CHUI 1616 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS. WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). Status 1) Responsive to communication(s) filed on 12/22/2010. 2a) This action is FINAL. 2b) This action is non-final. 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 8.11.12.14-18.20.21.30.32.33.35 and 36 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) Claim(s) _____ is/are allowed. 6) Claim(s) 8,11,12,14-18,20,21,30,32,33,35 and 36 is/are rejected. 7) Claim(s) _____ is/are objected to. 8) Claim(s) _____ are subject to restriction and/or election requirement. Application Papers 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are; a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abevance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.

1) Notice of References Cited (PTO-892)

Paper No(s)/Mail Date

Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)

Attachment(s)

Interview Summary (PTO-413)
 Paper No(s)/Mail Date.

6) Other:

5) Notice of Informal Patent Application

Art Unit: 1616

DETAILED ACTION

Status of Action

Receipt of Amendments/Remarks filed on 12/22/2009 is acknowledged. Claims 8, 11-12, 14-18, 20-21, 30, 32-33 and 35-36 are pending in this application. Claim 8 has been amended; claims 1-7, 9-10, 13, 19, 22-29, 31 and 34 have been cancelled.

Status of Claims

Accordingly, claims 8, 11-12, 14-18, 20-21, 30, 32-33 and 35-36 are presented for examination on the merits for patentability.

Claim Rejection - 35 U.S.C. § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(b) that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 8, 11-12, 14-15, 21, 32-33 and 35-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Rosch et al. (U. S. Patent No. 5,700,758).

Instant claims are drawn to a method for increasing the weed control of aryloxyphenoxypropionate herbicide (A) by applying one or more aryloxyphenoxypropionate herbicide (A), simultaneously or separately, with a synergistic herbicidally effective amount of one or more compound (B) (see structure below):

Art Unit: 1616

in which:

(i) R¹ = identical or different, and are each halogen or (C₁-C₄)-haloalkyl;

n = an integer from 1 to 3;

 $\mathbf{R^2} = \text{hydrogen, } (C_1\text{-}C_6)\text{-alkyl}; \ (C_1\text{-}C_4)\text{-alkoxyl-}(C_1\text{-}C_4)\text{-alkyl}; \ (C_3\text{-}C_6)\text{-alkyl}; \ (C_3\text{-}C_6)\text{-alkyl};$

cycloalkyl; $tri(C_1-C_4)$ -alkyl silyl or $tri(C_1-C_4)$ -alkyl silylmethyl;

 \mathbf{R}^3 = hydrogen; (C₁-C₆)-alkyl; (C₁-C₆)-haloalkyl; (C₂-C₆)-alkenyl; (C₂-C₆)-

alkynyl or (C3-C6)-cycloalkyl;

 \mathbf{R}^4 = hydrogen or (C_1-C_{12}) -alkyl; and

 the one or more aryloxyphenoxypropionate herbicide (A) is clodinafop-propargyl, diclofop-methyl or fenoxaprop-P-ethyl.

With respect to **claims 8, 11, 12, 33**, Rosch et al. disclose a method of protecting useful crop plants, i.e. cereal crops (e.g. wheat, barley) or rice, against phytotoxic secondary effects of herbicides by applying a compound of the formula (I) to the plants, seeds of the plants or areas under cultivation, before, after or simultaneously, with a herbicide. Rosch et al. also disclose that it would be advantageous to use such mixture, which comprises the herbicide and the compound of formula (I), for the selective weed control in cereal crops (column 3, line 48-61; column 5, lines 25-27, 28-32; column 12, lines 52-53).

Art Unit: 1616

Rosch et al. disclose that the method comprises compounds of formula (I), which have the property of reducing or completely preventing phytotoxic secondary effects of herbicides when use in useful crops or plants without impairing the effectiveness of the herbicides against harmful plants; therefore, it enlarges the field of application of conventional herbicides by adding the safener compounds of the formula (I) (column 3, lines 48-56).

Rosch et al. then disclose the compounds of formula (I) have the chemical structures (see below), and it is noted that the substituents present in the compounds of formula (I) by Rosch et al. and the substituents present in the compounds (B), as instantly claimed, are (see column 16-17, claims 1-4, 6, 10-11, 13-15; column 19, claim 18; column 20, claims 24-25):

Rosch et al. disclose that the substituent:

X = radicals independently of one another are halogen or C₁-C₄ haloalkyl;

Page 5

Application/Control Number: 10/531,830

Art Unit: 1616

$$\label{eq:R1} \textbf{R}^1 \quad = \quad C_1 - C_6 \text{-alkyl}, \quad C_3 - C_6 \quad \text{cycloalkyl}, \quad \text{tri}(C_1 - C_4 \quad \text{alkyl}) \\ \text{silylmethyl or} \\$$

$$\mathbf{R^2}$$
 and $\mathbf{R^3}$ = independently hydrogen, $C_1\text{-}C_6$ alkyl, $C_2\text{-}C_6\text{-}$ alkenyl, $C_2\text{-}C_6\text{-}$ alkynyl, $C_3\text{-}C_6\text{-}$ cvcloalkyl, $C_1\text{-}C_6\text{-}$ haloalkyl and $C_1\text{-}C_1\text{-}$ alkyl;

n = 1 to 3.

More specifically, Rosch et al. disclose a structure of the compound of formula (I) (see: column 20. claim 28):

$$\begin{array}{c} X \longrightarrow (G) \\ X \longrightarrow (G) \longrightarrow (E_1) \longrightarrow (R^1) \\ R^2 \longrightarrow (G) \longrightarrow (R^2) \end{array}$$

wherein the substituents of formula (I) are:

 $(X)_n = 2, 4$ -dichloro;

 \mathbf{R}^1 = ethyl;

 R^2 = methyl; and

 R^3 = ethoxycarbonyl.

It is noted that the compound of formula (I) set forth above is a known safener, which is commonly referred as mefenpyr-diethyl or chemically named as ethyl-1-(2, 4-diehlorophenyl)-5-ethoxycarbonyl-5-methylpyrazoline-3-carboxylate, as evidenced by the Index of Common Names of Pesticides, obtained online via

Art Unit: 1616

www.alanwood.net/pesticides/index_cn_frame.html). Therefore, Rosch et al. anticipates instant claim 12.

With respect to the recitation of "a synergistically effective amount of one of more compounds (B)" in claim 8 (see lines 4-5), the prior art Rosch et al. disclose that the compounds of formula (I) set forth above (or named as the compounds (B) in the instant claim 8) is present from 0.005-10 kg (5 to 10,000 g) per hectare, and preferably between 0.01 to 5 kg (or 10 to 5000 g) per hectare (column 7, line 14). It is noted that the instant specification discloses the application rate of compound (B) can vary and is generally in the range from 1-500 g per hectare (see page 14, lines 5-7). Therefore, Rosch et al. anticipates the synergistic herbicidally effective amount (in the range from 5-500 g per hectare) of one or more compounds (B), based on the disclosure in the instant specification.

With respect to **claims 14-15, 21, 31-32 and 35**, Rosch et al. disclose that the herbicides, whose phytotoxic secondary effects can be reduced by the compounds of formula (I), are the types of the (C₁-C₄)alkyl, (C₂-C₄)alkenyl or (C₃-C₄)alkynyl phenoxyphenoxy- and heteroaryloxyphenoxy carboxylates herbicides, as well as their structural analogs (column 4, lines 14-45).

More specifically, Rosch et al. disclose the herbicide is **fenoxaprop-P-ethyl** and the compound of formula (I) is **mefenpyr-diethyl** (column 18, lines 23-25, claim 15; column 20, claim 28).

Furthermore, Rosch et al. disclose that the weight ratio of the herbicide to the compound of formula (I) is preferably between 1:10 and 10:1, particularly between 1:2 and 10:1 (column 5, lines 17-19; column 17, claim 17). Therefore, Rosch et al.

Art Unit: 1616

anticipates the weight ratio of the herbicide (A) and the compound (B), as claimed in instant claims 31-32, 34-35.

Rosch et al. further disclose that the herbicide fenoxaprop-P-ethyl (or named as the herbicide (A) in instant claims 8 and 15) in combination with the compound of formula (I) (or named as the compound (B) in instant claims 8 and 15) is applied to the plants, to seeds of the plants or to the area under cultivation (column 18, lines 51-54, claim 15).

With respect to the recitation of the instant method is "for increasing weed control of aryloxyphenoxypropionate herbicide (A)", Rosch et al. do note expressly disclose the method set forth above is used for increasing weed control of the aryloxyphenoxypropionate herbicide. However, Rosch et al. disclose that the utility of the compounds of formula (I) is to reduce the phytotoxicity of the herbicides toward useful crop plants, and at the same time, without impairing the effectiveness of the herbicides against harmful plants. Therefore, Rosch et al. imply that the utilization of the safener, i.e. mefenpyr-diethyl, with the conventional herbicides set forth above would help to expand the field of application of these herbicides to more types of useful crops and plants, and thus, would widen the spectrum of the weeds or undesirable plants that can be controlled, as evidenced by Davies, J. (The article of Safeners, Pesticide Outlook, February 2001, page 10-15).

Davies, J. discloses that herbicide safeners selectively protect crop plants from herbicide damage without reducing activity in target weed species. They are used to improve herbicide selectivity between crop and weed species and can be applied either as a mixture with the herbicide or can be applied separately with the herbicide. Davies, J. Application/Control Number: 10/531,830 Page 8

Art Unit: 1616

also discloses that herbicide safeners improve crop tolerance to herbicides, and provides a flexible method of improving herbicide selectivity for weed control (page 10: left column, section of: What is a herbicide safener; page 14, section of: Conclusion).

Therefore, the method disclosed by Rosch et al. is <u>inherently</u> also for increasing the weed control of the herbicides, as the instant method.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- Determining the scope and contents of the prior art.
- Ascertaining the differences between the prior art and the claims at issue.
- Resolving the level of ordinary skill in the pertinent art.
- Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 16-18, 20, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosch et al. (U. S. Patent No. 5,700,758).

Applicants Claim

Application/Control Number: 10/531,830 Page 9

Art Unit: 1616

Applicants claim a method for increasing the weed control of aryloxyphenoxypropionate herbicide (A) by applying one or more aryloxyphenoxypropionate herbicide (A), simultaneously or separately, with a synergistic herbicidally effective amount of one or more compound (B) (see structure below):

$$(R^3)_{\mathbb{R}} \xrightarrow{\mathbb{R}^2} OR^2$$

in which:

R¹ = identical or different, and are each halogen or (C₁-C₄)-haloalkyl;

n = an integer from 1 to 3;

 $R^2 \hspace{0.5cm} = \hspace{0.5cm} \text{hydrogen, } (C_1 - C_6) \text{-alkyl; } (C_1 - C_4) \text{-alkoxyl-} (C_1 - C_4) \text{-alkyl; } (C_3 - C_6) \text{-cycloalkyl; } \\$

tri(C1-

C₄)-alkyl silyl or tri(C₁-C₄)-alkyl silylmethyl;

 \mathbf{R}^3 = hydrogen; (C₁-C₆)-alkyl; (C₁-C₆)-haloalkyl; (C₂-C₆)-alkenyl; (C₂-C₆)-alkynyl or

(C3-C6)-cycloalkyl;

 \mathbf{R}^4 = hydrogen or (C_1-C_{12}) -alkyl; and

wherein the one or more aryloxyphenoxypropionate herbicide (A) is clodinafoppropargyl, diclofop-methyl or fenoxaprop-P-ethyl and the compound (B) is mefenpyrdiethyl.

Determination of the scope and content of the prior art (MPEP 2141.01)

Art Unit: 1616

The teaching of Rosch et al. has been set forth above. Essentially, Rosch et al. teach a method of protecting useful crop plants, i.e. cereal crops (e.g. wheat, barley) or rice, against phytotoxic secondary effects of herbicides by applying a compound of the formula (I) to the plants, seeds of the plants or areas under cultivation, before, after or simultaneously, with a herbicide. Rosch et al. also teach that it would be advantageous to use such mixture, which comprises the herbicide and the compound of formula (I) for the selective weed control in cereal crops (column 3, line 48-61; column 5, lines 25-27, 28-32; column 12, lines 52-53).

Rosch et al. teach that the method comprises compounds of formula (I), which have the property of reducing or completely preventing phytotoxic secondary effects of herbicides when use in useful crops or plants without impairing the effectiveness of the herbicides against harmful plants; therefore, it enlarges the field of application of conventional herbicides by adding the safener compounds of the formula (I) (column 3, lines 48-56).

Rosch et al. then teach the compounds of formula (I) have the chemical structures (see below), and it is noted that the substituents present in the compounds of formula (I) by Rosch et al. and the substituents present in the compounds (B), as instantly claimed, are (see column 16-17, claims 1-4, 6, 10-11, 13-15; column 19, claim 18; column 20, claims 24-25):

$$(R^1)_{k}$$
 R^2
 $(X)_{h}$
 R^3
 R^2

Page 11

Application/Control Number: 10/531,830

Art Unit: 1616

Substituent (instant compounds B)	Substituent (by Rosch et al.)
\mathbb{R}^1	X
\mathbb{R}^2	\mathbb{R}^1
\mathbb{R}^3	R^2 or R^3
CO_2R^4	R^2 or R^3
N	N .

Rosch et al. teach that the substituent:

 $\label{eq:X} X \qquad = \qquad \text{radicals independently of one another are halogen or C_1-C_4} \\ \text{haloalkyl;}$

 ${f R}^1$ = C_1 - C_6 -alkyl, C_3 - C_6 cycloalkyl, tri(C_1 - C_4 alkyl)silyl, trimethyl-silylmethyl or

 R^2 and R^3 $\,\,$ = $\,\,$ independently hydrogen, $C_1\text{-}C_6$ alkyl, $C_2\text{-}C_6\text{-}$ alkynyl, $C_3\text{-}$ $C_6\text{-}\text{cycloalkyl},\,C_1\text{-}C_6\text{-}\text{haloalkyl}\,\text{and}\,\,C_1\text{-}C_{12}\,\,\text{alkyl};$

$$n = 1 \text{ to } 3.$$

More specifically, Rosch et al. teach a structure of the compound of formula (I) (see: column 20, claim 28):

$$x \rightarrow C_1$$
 $x \rightarrow C_2$
 $x \rightarrow C_3$
 $x \rightarrow C_4$
 $x \rightarrow C_5$
 $x \rightarrow C_5$
 $x \rightarrow C_6$
 $x \rightarrow$

wherein the substituents of the compound of formula (I) are:

$$(X)_n = 2$$
, 4-dichloro (where $n = 2$)

Art Unit: 1616

 R^1 = ethyl;

R² = methyl; and

 \mathbb{R}^3 = ethoxycarbonyl.

It is noted that the compound of formula (I) set forth above is a known safener, which is commonly referred as methylpyrazoline-3-carboxylate, as evidenced by the Index of Common Names of Pesticides, obtained online via www.alanwood.net/pesticides/index on frame.html).

With respect to the recitation of "a synergistically effective amount of one or more compounds (B)" in claim 8 (see lines 4-5), the prior art Rosch et al. teach that the compounds of formula (I) set forth above (or named as the compounds (B) in the instant claim 8) is present from 0.005-10 kg (5 to 10,000 g) per hectare, and preferably between 0.01 to 5 kg (or 10 to 5000 g) per hectare (column 7, line 14). It is noted that the instant specification discloses the application rate of compound (B) can vary and is generally in the range from 1-500 g per hectare (see page 14, lines 5-7). Therefore, Rosch et al. meets the claimed limitation of the synergistic herbicidally effective amount of one or more compounds (B), based on the disclosure in the instant specification for the range from 1-500 g per hectare.

Rosch et al. teach that the suitable herbicides, whose phytotoxic secondary effects can be reduced by the compounds of formula (I), are the types of the (C₁-C₄)alkyl, (C₂-C₄)alkenyl or (C₃-C₄)alkynyl phenoxyphenoxy and heteroaryloxyphenoxy carboxylates herbicides, as well as their structural analogs (column 4, lines 14-45). More specifically,

Art Unit: 1616

Rosch et al. teach that the herbicide is **fenoxaprop-P-ethyl** and the compound of formula (I) is **mefenpyr-diethyl** (column 18, lines 23-25, claim 15; column 20, claim 28). However, Rosch et al. teach that in addition to herbicides fenoxaprop-P-ethyl and fenoxaprop-ethyl, other herbicides such as <u>diclofop-methyl</u> (named as methyl 2-(4-(2, 4-dichlorophenoxy)propionate) and <u>clodinafop-propargyl</u> (named as propargyl 2-(4-(5-chloro-3-fluoropyridyl-2-oxy)phenoxy)propionate) are also suitable herbicides for use with the compound of formula (I) set forth above.

Rosch et al. further teach that the compound of formula (I), i.e. mefenpyr-diethyl, can be combined with one or more of the herbicides, or groups of herbicides set forth above, which then can be formulated in a variety of ways, dependent on the biological and/or chemical-physical parameters of the herbicides (column 5, lines 40-44 and column 20, claim 28). Therefore, the selection for the compound of formula (I) and herbicide are dependent on the nature of the plants to be treated, and they can be determined for each individual case by appropriate experiments (column 5, lines 20-24).

Ascertainment of the difference between the prior art and the claims (MPEP 2141.02)

Rosch et al. do <u>not</u> expressly teach the method set forth above is used for increasing weed control of the aryloxyphenoxypropionate herbicide, as instantly claimed.

However, Rosch et al. teach that the utility of the compounds of formula (I) is useful for protecting crop plants (such as cash crops wheat and rice) against phytotoxic secondary effects of the herbicides, as those set forth above, such that the field of application of these herbicides can be expanded for selective weed control in those useful

Art Unit: 1616

crop plants (see column 3, line 48-61; column 5, lines 25-27, 28-32; column 12, lines 52-53), as evidenced by Davies, J. (The article of Safeners, Pesticide Outlook, February 2001, page 10-15).

Davies, J. discloses that herbicide safeners selectively protect crop plants from herbicide damage without reducing activity in target weed species. They are used to improve herbicide selectivity between crop and weed species and can be applied either as a mixture with the herbicide or can be applied separately with the herbicide. Davies, J. also discloses that herbicide safeners improve crop tolerance to herbicides, and provides a flexible method of improving herbicide selectivity for weed control (page 10: left column, section of: What is a herbicide safener, page 14, section of: Conclusion).

Finding of prima facie obviousness Rational and Motivation (MPEP 2142-2143)

It would have been obvious to a person of ordinary skilled in the art at the time the invention was made to follow the guidance of Rosch et al. to arrive at the instant invention.

One of ordinary skill would have been motivated to do so because Rosch et al. teach the method of employing a safener, i.e. mefenpyr-diethyl (the instantly claimed compound B), to reduce the phytotoxicity of the herbicides toward the useful crop plants, and at the same time, without impairing the effectiveness of the herbicides against harmful plants. Therefore, the teaching of Rosch et al. suggest the utilization of the safener, i.e. mefenpyr-diethyl, with the conventional herbicides set forth above would help to expand the field of application of these herbicides to more types of useful crops

Art Unit: 1616

and plants, and thus, would widen the spectrum of the weeds or undesirable plants that can be controlled, as suggested by Rosch et al. and as evidenced by Davies, J.

From the teaching of the reference, one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

Response to Arguments

Applicants' arguments filed on 12/22/2009 have been considered but they are not persuasive.

Applicants argue that the compounds disclosed in Rosch et al. are used as safeners to reduce the harmful effects of herbicides; however, the effect of safeners is not related to affecting the herbicidal activity of an herbicide against an unwanted plant, as claimed. As such, there is no basis that Rosch inherently teaches increasing weed control, but simply represents the known state of the art with regard to safeners (see Remarks: page 6-7).

The arguments are not persuasive. Although instant method is drawn to increase the weed control of the aryloxyphenoxypropionate herbicide (A) where the method of Rosch et al. is drawn to protect crop plants phytotoxic effects of herbicides; however, the instant method and the method disclosed in Rosch et al. both utilize the same combination of an aryloxyphenoxypropionate herbicide (A) and a known safener, namely compound of formula (I). In addition, Rosch et al. exemplify the herbicide is fenoxaprop-P-ethyl and the compound of formula (I) is mefenpyr-diethyl, and Rosch et

Art Unit: 1616

al. also exemplify the weight ratio of the herbicide to the compound of formula (I) that is applied to the plants, seeds of the plants or the area under cultivation is between 1:10 and 10:1, which range falls within the weight ratio range instantly claimed. Since both methods involve the action of weed control, which is achieved by the aryloxyphenoxypropionate herbicide (A), and the action of protect crop plants phytotoxic effects of herbicides, which is achieved by the safener of compound of formula (I), the instant method of weed control is inherently present in the method of Rosch et al. because a chemical compound and its properties are inseparable. Therefore, if the prior art discloses the identical chemical structure, the properties applicant discloses and/or claims are necessarily present (see MPEP 2112.01: Part II and also see *In re Spada*, 911 F.2d 705, 709, 15 USPO2d 1655, 1658 (Fed. Cir. 1990).

It should be noted that although the instant method recites the term "increasing" for the weed control method, the term "increasing" is not defined by the claims and the specification does not provide a standard for ascertaining the requisite degree of this term. Therefore, the Examiner takes the position that the property of increasing the weed control is also encompassed by the method of Rosch et al. for the reason set forth above.

Applicants also argue that Rosch et al. do not suggest the specific combination recited in claims 18 and 20 (see Remarks: page 7). The argument is not persuasive because claims 18 and 20 are not rejected under the anticipation by Rosch et al., but they are rejected under the obviousness reasoning. Therefore, the prior art Rosch et al. is not required to exemplify the specific herbicide-safener combination as those required in claims 18 and 20 in the rejection under 35 USC 102(b).

Art Unit: 1616

Applicants further argue that evidence of unexpected results provided in the specification, i.e. that a safener could improve weed control when administered with an appropriate herbicide. The state of the art for safeners was such that safeners would only have some expectation of success that a safener may reduce the phytotoxic effect of a desired plant and no expectation that they would have increased the effectiveness in weed control (see Remarks; page 8).

The argument is not persuasive. Although the instant specification (Table 2 and 3) shows when the crop plants phytotoxic effects is reduced, there is an improved of weed control accompanied by that effect, the instant method of increasing weed control is inherently present in the method of Rosch et al. Although Rosch et al. do not expressly teach the effect of increasing weed control in the presence of the safener, Rosch et al. teach the use of an identical herbicide, namely fenoxaprop-P-ethyl for the purpose of weed control, and an identical safener, namely mefenpyr-diethyl for the purpose of protecting crop plants phytotoxic effects of herbicides, as the combination instantly claimed. It should be noted that a chemical compound and its properties are inseparable. Therefore, if the prior art discloses the identical chemical structure, the properties applicant discloses and/or claims are necessarily present (see MPEP 2112.01: Part II and also see *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Conclusion

No claims are allowed.

Art Unit: 1616

Contact Information

Any inquiry concerning this communication from the Examiner should direct to

Helen Mei-Ping Chui whose telephone number is 571-272-9078. The examiner can

normally be reached on Monday-Thursday (7:30 am - 5:00 pm). If attempts to reach the

examiner by telephone are unsuccessful, the examiner's supervisor Johann Richter can be

reached on 571-272-0646. The fax phone number for the organization where the

application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either PRIVATE PAIR or PUBLIC PAIR.

Status information for unpublished applications is available through PRIVATE PAIR

only. For more information about the PAIR system, see http://pair-direct.uspto.gov.

Should you have questions on access to the PRIVATE PAIR system, contact the

Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/H C /

Examiner, Art Unit 1616

/Mina Haghighatian/ Primary Examiner, Art Unit 1616